Case Report

Cavernous Hemangioma of the Base of the Skull
Report of a Case Treated Surgically

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Cavernous hemangioma of the base of the skull is a rare condition, even among the relatively uncommon cranial hemangiomas. The subject has been reviewed by Courville et al.,1 Wyke,10 Kleinsasser and Albrecht,6 Kleinsasser3 and Gerlach and Simon.2 Intracranial complications are unusual though Politzer7 described a case in which the tumor led to death without operation. Kessler et al.4 reported the case of an 8-year-old girl in whom fatal epidural bleeding occurred from a cavernous hemangioma of the petrous bone. Graf3 reported a case in which there was fatal hemorrhage into the 4th ventricle.

The following case has unique features and the tumor reported is one of the few large hemangiomas successfully treated surgically.

Case Report

A 36-year-old woman was admitted to our hospital June 29, 1962. At birth she had an extensive hemangioma of the right side of the face. This gradually increased in size and 2 years prior to admission a plastic operation was performed with the application of split-thickness skin grafts to the face (Fig. 1). One year before admission she noticed impairment of vision. Six months later diplopia, headache and vertigo developed and, somewhat later, nausea and vomiting. For the month and a half before admission there was proptosis of the right eye.

Examination revealed the plastic revision of the right side of the face with residual hemangioma in the parietal part of the scalp and about the right ear. Blood pressure was 100/75 and pulse rate 64. There was blurring of the margins of both optic discs with papilledema and hemorrhage on the right, and there was a left homonymous hemianopsia. No changes were demonstrated in motor, sensory or reflex functions.

Electroencephalography revealed slow activity on the right, most marked in the temporal area. Count of cells in the spinal fluid was normal and protein was 170 mg. per cent. Roentgenograms of the skull showed thickening of the right parietal bone with radiating spicules characteristic of hemangioma (Fig. 4) while tomograms (Fig. 2) disclosed a lobulated mass obliterating the outlines of the sella and sphenoid sinus. Right carotid angiography (Figs. 3 and 4) demonstrated posterior and

Fig. 1. Photographs showing right side of the face before and after plastic operation.
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Fig. 2. Sagittal tomography of the right side of the skull at a depth of 6.5 cm. A lobulated density lies in the region of sphenoid sinus and sella.

lateral displacement of the proximal intracranial portion of the internal carotid artery, elevation and medial displacement of the middle cerebral artery and a shift of the anterior cerebral artery to the left, findings characteristic of a right parasellar tumor with subtemporal extension. There was no tumor stain.

Operation. On July 17, 1962 a right temporal craniotomy was performed. Bone in the parietal region and in the lesser wing of the sphenoid was thick and soft and bled more than normal bone. The dura mater appeared normal. The gyri of the temporal lobe were wide and pale. Resection of a thin layer of temporal lobe exposed an encapsulated bluish tumor completely filling the middle fossa (Fig. 5). The capsule, which was dura mater, elevated from bone by the tumor, was incised and the tumor was dissected free of its bony attachment. During the dissection massive hemorrhage occurred from the internal carotid artery making it necessary to clip this vessel. The tumor, which measured 6X8X8 cm, and involved the petrous bone and the body and greater

Fig. 4. Right anteroposterior carotid arteriogram showing lateral displacement of the carotid siphon, elevation and medial displacement of the middle cerebral artery and shift of the anterior cerebral artery to the left. Formation of spicules is seen in the parietal bone, and lesser wings of the sphenoid, was removed completely.

Course. Following operation, the patient had a right ophthalmoplegia and left hemiplegia. However, within a few weeks movement returned in the left lower ex-

Fig. 3. Right lateral carotid arteriogram showing posterior displacement of the proximal part of the carotid siphon and elevation of the middle cerebral artery.

Fig. 5. Photograph of the encapsulated tumor, exposed by resecting the temporal lobe.